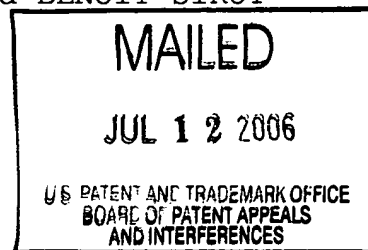UNITED STATES PATENT AND TRADEMARK OFFICE

_____

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

_____

<u>Ex parte</u> FREDERIC BAUCHOT, DANIEL MAUDUIT, and BENOIT SIROT

_____

Appeal No. 2006-0688
Application No. 09/838,425

_____

ON BRIEF

_____

```
┌─────────────────────────────┐
│          MAILED             │
│        JUL 1 2 2006         │
│  US PATENT AND TRADEMARK    │
│      OFFICE                 │
│  BOARD OF PATENT APPEALS    │
│     AND INTERFERENCES       │
└─────────────────────────────┘
```

Before JERRY SMITH, RUGGIERO, and MACDONALD, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

<u>DECISION ON APPEAL</u>

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1-7, which constitute all the claims pending in this application.

The disclosed invention pertains to a mechanism in an electronic spreadsheet for comparing two series of cells using Boolean attributes which are assigned to each of the cells.

Representative claim 1 is reproduced as follows:

1.   A method of comparing two series of cells in a multidimensional spreadsheet comprising a plurality of cells identified by a cell address along each dimension, a series of cells comprising one or a plurality of cell range, a cell range comprising one or a plurality of cells, said method comprising the steps of:

defining a Boolean attribute, said Boolean attribute
having a first and a second value;

assigning the first value of said Boolean attributes
to each cell of a first series of cells;

assigning the second value of said Boolean attribute to
each cell of a second series of cells;

determining in a first operation whether all the cells
of said first series of cells share the same first value of
said Boolean attribute, or share the same second value of
said Boolean attribute or do not share single value of said
Boolean attribute;

for a second operation, again assigning the first value
of said Boolean attribute to each cell of the first series
of cells;

determining in a second operation whether all the cells
of the second series of cells share the same first value of
said Boolean attribute, or share the same second value of
said Boolean attribute or do not share a same single value
of said Boolean attribute;

recording intermediary information from the first
operation and the second operation in a comparison table,
stored in a memory of a computer;

determining whether the first series and the second
series are the same or not by comparing results of the first
operation and the second operation:

if all the cells of the first series share the same
second value of said Boolean attribute in said first
operation and if all the cells of the second series share
the same first value of said Boolean attribute in said
second operation, the first series and second series are the
same.

The examiner relies on the following references:

Julia Kelly, "Using Microsoft® Excel® 97," 3rd edition, Que
Corp., 1998, pages 124-131, 138-144, 154-189, 209-210 and 337-
343.

H. M. Deitel et al. (Deitel), "C++:How to Program," 2nd edition,
Prentiss Hall, 1994, pages 10, 106-110, 147, 243-244, 256-262,
448, 473-479, 483-485, 707-730, 981-987 and 1043-1045.

Microsoft® Computer Dictionary, 4th edition, Microsoft Press, 1999, pages 29, 56-58, 79, 229, 272, 420 and 434.

The following rejections are on appeal before us:

1. Claims 1-7 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

2. Claim 7 stands rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which appellants regard as the invention.

3. Claims 6 and 7 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

4. Claims 1-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Kelly in view of Deitel. The Microsoft® Dictionary has been used to supply definitions of various computer terms.

Rather than repeat the arguments of appellants or the examiner, we make reference to the briefs and the answer for the respective details thereof.

<u>OPINION</u>

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the prior art rejection. We have, likewise, reviewed and taken into

consideration, in reaching our decision, the appellants'
arguments set forth in the briefs along with the examiner's
rationale in support of the rejections and arguments in rebuttal
set forth in the examiner's answer.

It is our view, after consideration of the record before
us, that the invention of claims 1-7 is enabled by the
specification of this application. We are also of the view that
the invention set forth in claim 7 complies with the second
paragraph of 35 U.S.C. § 112. We are further of the view that
claims 6 and 7 are directed to statutory subject matter.
Finally, we are of the view that the evidence relied upon and the
level of skill in the particular art would not have suggested to
one of ordinary skill in the art the obviousness of the invention
as set forth in the claims on appeal. Accordingly, we reverse.

We consider first the rejection of claims 1-7 under the
first paragraph of 35 U.S.C. § 112. The examiner asserts that
the preferred embodiment discloses a technically incorrect
solution because the only possible processing option for step
number 515 in Figure 5 of the application is step number 518
"Result=DISJOINED" [answer, page 6]. Appellants argue that the
examiner fails to understand how the Boolean values are assigned
in step number 505 of Figure 5 of the application. Specifically,
appellants note that the second operation in step number 505 may
change the values established in the first operation of step

4

number 505 when cells in the two series of cells overlap.
Appellants have provided an example showing that the operations
of Figure 5 correctly represent the claimed invention [brief,
pages 5-10]. The examiner reiterates that the flow chart of
Figure 5 is incorrect, but does not address appellants' arguments
regarding the examiner's alleged misunderstanding of step 505
[answer, pages 15-17]. Appellants essentially reiterate that the
examiner has mischaracterized the manner in which the flow chart
of Figure 5 operates [reply brief, pages 2-5].

We will not sustain the examiner's rejection of claims 1-
7 as being based on a non-enabling disclosure for essentially the
reasons argued by appellants in the briefs. The examiner's
position that the flow chart of Figure 5 always ends in the same
result is simply incorrect and demonstrates a lack of
understanding of how the invention works. The examiner
apparently fails to appreciate that when cells of the B series
overlap with cells of the A series, then the second operation of
step 505 in Figure 5 changes the previously set true values for
those cells to false values. It is this fact that brings about
the various outcomes shown in Figure 5. This manner in which the
invention operates is clear from appellants' description of the
invention and in the working example given by appellants in the
brief. It is not clear to us on this record why the examiner

simply ignored appellants' evidence that the disclosure satisfied
the first paragraph of 35 U.S.C. § 112.

We now consider the rejection of claim 7 under the second
paragraph of 35 U.S.C. § 112. The examiner states that the
computer readable medium of claim 7 was not defined in the
specification, and as such, the scope of the claim is
indeterminable [answer, page 7]. Appellants argue that those of
ordinary skill in the art are well aware of what a computer
readable medium is and that the term does need to be defined in
the specification. Appellants note that the term is even used in
the MPEP as exemplary of claim language directed to statutory
subject matter [brief, pages 8-10]. The examiner responds that
there is no evidence within the specification to support
appellants' definition of a computer readable medium and that it
could be read on a thing like a piece of paper that could be
scanned [answer, pages 18-19]. Appellants respond that the
examiner has confused a question of claim breadth with claim
definiteness [reply brief, pages 5-7].

We will not sustain the examiner's rejection of claim 7
as being indefinite. We agree with appellants that the
examiner's rejection is concerned with the breadth of the claim
language rather than its definiteness. A claim must set out and
circumscribe a particular area with a reasonable degree of
precision and particularity when read in light of the disclosure

as it would be by the artisan. In re Moore, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971); In re Johnson, 558 F.2d 1008, 194 USPQ 187 (CCPA 1977). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed in light of the specification. Seattle Box Co., v. Industrial Crating & Packing, Inc., 731 F.2d 818, 826, 221 USPQ 568, 574 (Fed. Cir. 1984). We agree with appellants that the artisan having read the disclosure in this application would understand what is covered by the claimed "computer readable medium."

We now consider the rejection of claims 6 and 7 as being directed to non-statutory subject matter. With respect to claim 6, the examiner asserts that it is directed to a computer program per se or an abstract idea that is not tied to any technological environment and does not result in a practical application producing a concrete, useful and tangible result. With respect to claim 7, the examiner asserts that the recited computer readable medium may encompass an intangible embodiment such as a carrier wave or transmission media [answer, page 7]. Appellants argue that claim 6 is directed to a system having "means for" elements. Appellants note that these elements relate to a computer system such as shown in Figure 1A and cannot be a computer program per se. With respect to claim 7, appellants argue that computer readable media have been held to be statutory

subject matter. Appellants assert that there is no requirement
that the computer readable medium itself be tangible, but only
that it produce a result that is useful, concrete and tangible.
They argue that the fact that a computer readable medium might
read on carrier waves or transmission media is not a basis to
find the claimed invention to be non-statutory [brief, pages 10-
14]. With respect to claim 6, the examiner responds that the
claim requires no hardware and may encompass a purely software
system. With respect to claim 7, the examiner responds that the
claim includes an intangible embodiment which is not statutory
subject matter [answer, pages 19-20]. Appellants respond that
the means of claim 6 is supported by the system of Figure 1A
which may include software but is not software only. Appellants
also respond that there is no requirement that the data be
permanently recorded on the media. They also assert that carrier
waves and transmission media are tangible because they are
capable of being perceived [reply brief, pages 7-10].

    We will not sustain the examiner's rejection of these
claims as being directed to non-statutory subject matter for
essentially the reasons argued by appellants in the briefs. As
noted by appellants, claim 6 is in the form of means plus
function. The functions recited in claim 6 clearly cannot read
on software only because the functions can only be performed in
cooperation with the computer hardware. Therefore, the

examiner's position that the invention of claim 6 requires no hardware is simply incorrect. With respect to claim 7, the examiner's position seems to be that the claimed invention includes within its scope an intangible embodiment. We agree with appellants that claim 7 is directed to the medium which carries the instructions for performing the method of claim 1. As noted by appellants, the courts have held that computer readable media having instructions therein are directed to statutory subject matter.

We now consider the rejection of claims 1-7 under 35 U.S.C. § 103. In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). The examiner must articulate reasons for the examiner's decision. In re Lee, 277 F.3d 1338, 1342, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002). In particular, the examiner must show that there is a teaching, motivation, or suggestion of a motivation to combine references relied on as evidence of obviousness. Id. at 1343, 61 USPQ2d at 1433-34. The examiner cannot simply reach conclusions based on the examiner's own understanding or experience - or on his or her assessment of

what would be basic knowledge or common sense. Rather, the
examiner must point to some concrete evidence in the record in
support of these findings. In re Zurko, 258 F.3d 1379, 1386, 59
USPQ2d 1693, 1697 (Fed. Cir. 2001). Thus the examiner must not
only assure that the requisite findings are made, based on
evidence of record, but must also explain the reasoning by which
the findings are deemed to support the examiner's conclusion.
However, a suggestion, teaching, or motivation to combine the
relevant prior art teachings does not have to be found explicitly
in the prior art, as the teaching, motivation, or suggestion may
be implicit from the prior art as a whole, rather than expressly
stated in the references. The test for an implicit showing is
what the combined teachings, knowledge of one of ordinary skill
in the art, and the nature of the problem to be solved as a whole
would have suggested to those of ordinary skill in the art. In
re Kahn, 441 F.3d 977, 987, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)
(citing In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313 (Fed.
Cir. 2000)). See also In re Thrift, 298 F. 3d 1357, 1363, 63
USPQ2d 2002, 2008 (Fed. Cir. 2002). These showings by the
examiner are an essential part of complying with the burden of
presenting a prima facie case of obviousness. Note In re
Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir.
1992). If that burden is met, the burden then shifts to the
applicant to overcome the prima facie case with argument and/or

evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered and are deemed to be waived [see 37 CFR § 41.37(c)(1)(vii)(2004)].

The examiner has indicated how the claimed invention is deemed to be rendered obvious by the teachings of the applied references [answer, pages 8-15]. Appellants argue that none of the references teach or suggest the specific methodology recited in claim 1. Specifically, appellants argue that the scenario comparison of Kelly has nothing to do with determining if series are the same, overlap, etc. Appellants also argue that the comparison in Kelly does not use a Boolean variable as claimed. With respect to Deitel, appellants argue that the code cited by the examiner does not relate to any Boolean attribute, but instead, relates to an array size. Appellants argue that the examiner has pointed to portions of the references that have nothing to do with the claimed invention [brief, pages 12-21]. The examiner responds that the claim limitations are merely a

laundry list of operations that are well known in the art. The examiner asserts that performing these well known operations on specific variables and using a specific data type is an obvious design choice [answer, pages 21-26]. Appellants respond that the examiner is relying on broad generalizations rather than finding the specific recitations of the claimed invention [reply brief, pages 10-12].

We will not sustain the examiner's rejection of the claims based on Kelly and Deitel. We agree with appellants that the examiner's rejection is based on broad generalizations of what is obvious and substantially ignores the specific recitations of the claims. We can find nothing in the portions of the applied references cited by the examiner that relate to the claimed invention. The examiner has failed to establish a prima facie case of obviousness because the examiner has broadly dismissed the specific recitations of the claimed invention as being obvious without any supporting evidence.

In summary, we have not sustained any of the examiner's rejections of the claims on appeal. Therefore, the decision of the examiner rejecting claims 1-7 is reversed.

REVERSED

JERRY SMITH
Administrative Patent Judge)
)
)
)
)
JOSEPH F. RUGGIERO) BOARD OF PATENT
Administrative Patent Judge) APPEALS
) AND
) INTERFERENCES
)
)
)
ALLEN R. MACDONALD)
Administrative Patent Judge)

IBM CORP
C/O WALDER INTELLECTUAL PROP. LAW, PC
P.O. BOX 832745
RICHARDSON, TX 75083